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S/058/61/000/008/012/044
A058/A101

AUTHORS: Nuvar'yeva, V. V., Razmazanov, F. Ye., Chizhikova, L. A.

TITLE: Investigation of the photo- and electro-luminescence spectra of ZnS-Cu, Al phosphors

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1961, 150, abstract 8V405 ("Dokl. Mezhvuz. nauchn. konferentsii po spektr. analizu. Tomsk. Tomskiy un-t", 1960, 115-117)

TEXT: Two ZnS-Cu,Al electroluminescent phosphors were investigated, one of which had a blue glow while the other had a green glow. The electro- and photo-luminescence spectra practically coincide in the case of low concentration of blue centers. In phosphors containing more blue centers it was noted that the position of the peak of the temperature dependence differs for the two types of excitation. This difference in luminescence spectra is explained by the fact that the blue centers are not uniformly distributed throughout the volume but are concentrated for the most part near places where the centers undergo impact ionization.

[Abstracter's note: Complete translation]

A. Burlakov

Card 1/1

BODYAZHINA, V.I., prof.; CHIZHIKOVA, L.L.

Some problems in the clinical aspects and treatment of late toxicoses of pregnancy. Sov. med. 24 no. 7:3-11 Jl '60. (MIRA 13:8)

1. Iz kafedry akusherstva i ginekologii I Moskovskogo ordena Lenina meditsinskogo instituta im. I.M. Sechenova (zav. - prof. K.N. Zhmakin) i rodil'nogo doma No. 15 (glavnyy vrach M.A. Afraymovich).
(PREGNANCY, COMPLICATED)

L.V.

TKACHEV, K.I.; CHIZHIKOVA, L.V.; SARAYLOV, M.G.; KRIMER, F.P.; LEBEDEV, K.P., inzhener, [illegible]; BARANOV, I.A., inzhener, redaktor; LEYKINA, T.L., redaktor; POL'SKAYA, R.G., tekhnicheskiy redaktor.

[Improving the technology of casting fixtures] Usovershenstvovanie tekhnologii otlivki detalei armatury. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1955. 154 p. (MLRA 8:11)
(Founding)

SOV/137-57-1-757

Translation from: Referativnyy zhurnal. Metallurgiya, 1957, Nr 1, p 97 (USSR)

AUTHOR: Chizhikova, L. V.

TITLE: Shop Experience With the Use of Quick-drying Water-glass-base Mixtures (Zavodskiy opyt primeneniya bys rosokhnushchikh smesey s zhidkim steklom)

PERIODICAL: V sb.: Povysheniye proizvoditel'nosti truda v liteynom proiz-ve. Moscow-Leningrad, Mashgiz, 1955, pp 146-151

ABSTRACT: A report is made on the use of molding mixtures (MM) on a water-glass (WG) base in the preparation of thin-wall (6 - 10 mm) steel, iron and nonferrous castings weighing from 0 to 150 kg. The composition of MM is as follows (in %): Sand 1K 50/100 94, FZhlS clay 6, caustic-soda solution (sp. gr. 1.07 - 1.1) + 1, soda WG (sp. gr. 1.48 - 1.52, modulus 2.6 - 2.7) 5.9, and fuel oil 0.6 %. In MM for small castings the amount of quartz sand is reduced to 67% through the utilization of used mixture. In nonferrous and iron casting the molds are coated with special paints to prevent pick up of sand crust. The molds are dried mainly in compartment dryers. The blowing of CO_2 is 10 - 12 kg per ton of castings at a cost of 10 rubles. The use of

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SOV/137-57-1-757

Shop Experience With the Use of Quick-drying Water-glass-base Mixtures

MM with WG sharply reduced the amount of rejects caused by leaks in casting and decreased the labor consumption of the casting operations.

Ya. M.

Card 2/2

SEKT, Pavel Yefimovich; BELIKOV, Aleksandr Mikhaylovich; CHIZHIKOVA, M.I. otvetstvennyy red.; SUROVA, V.A., red.izd-va; BERLOV, A.P., tekhn. red.; KOROVENKOVA, Z.A., tekhn.red.

[Economics, organization and planning of production in coal dressing plants] Ekonomika, organizatsiia i planirovanie proizvodstva na uglеobogatitel'nykh fabrikakh. Moskva, Ugletekhizdat, 1957. 276 p. (MIRA 11:2)
(Coal preparation)

BORISOVA, V.D. Prinimali uchastiye: BATURINA, Ye.A.; PESHKOVA, F.G.; ALENTOV, Ye.P.; LEVUSHKINA, V.Ye.; PETROVA, N.I.; SABLINA, O.F.; SLYAINEV, A.P.; TEVEROVSKAYA, Kh.A.; CHIZHIKOVA, N.M. SHPAKOVSKAYA, L.I., red.; POTOTSKAYA, N.M., tekhn.red.

[Districts of Novosibirsk Province; physicogeographical features] Raiony Novosibirskoi oblasti; prirodno-ekonomicheskaia kharakteristika. Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1959. 367 p. (MIRA 13:9)

(Novosibirsk Province--Economic geography)

CHIZHIKOVA, N.N., assistent

Fixed assets of railroad transportation and several ways of improving the utilization of locomotives. Uch. zap. LIIZHT no.3:83-95 '62. (MIRA 17:3)

YEVDOKIMOVA, T.I.; CHIZHIKOVA, N.P.

Brown forest soils in southern Smolensk Province. Nauch. dokl. vys. shkoly; biol. nauki no.4:174-179 '64. (MIRA 17:12)

1. Rekomendovana kafedroy pochvovedeniya Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

LABENETS, Ye.M.; Prinimali uchastiye: GRADUSOV, B.P.; CHIZHIKOVA, N.P.

Chemical and mineralogical characteristics of the meadow Soloth soils in the Krasnoznamensk Canal zone. Pochvovedenie no.11:44-59 N '64 (MIRA 18:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva AN SSSR, Moskva.

CHIZHIKOVA, N.P.

Chemical and mineralogical composition of southern Chernozems in Kustanay Province. Pochvovedenie no.10: 88-98 O '65. (MIRA 18:11)

1. Pochvennyy institut imeni Dokuchayeva.

GRABETSKIY, A.A., kand.pedagog.nauk. Prinimali uchastiye: GOSTEV, M.M., kand.pedagog.nauk [deceased]; GLORIOZOV, P.A.; IVANOV, P.P., uchitel' sredney shkoly. VLASOV, G.S., otv.red.; SHAROV, I.N., red.; CHIZHIKOVA, O.M., red.; SMIRNOV, G.I., tekhn.red.; GOLOVKO, B.N., tekhn.red.

[Chemical apparatus for the study of chemistry in secondary schools; catalog and handbook] Uchebnoe oborudovanie po khimii dlia sredneĭ shkoly; katalog-spravochnik. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1958. 134 p. (MIRA 13:6)

1. Russia (1917- R.S.F.S.R.) Ministerstvo prosveshcheniya. 2. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Gloriozov).
(Chemistry--Handbooks, manuals, etc.) (Chemical apparatus)

CHIZHIKOVA, V.A.

Improvement and changes observed in some meadows of Leningrad Province. Vest. LGU 16 no.3:67-76 '61. (MIRA 14:2)
(Leningrad Province—Pasture research) (Deschampsia)

CHIZHIKOVA, V.A.

Biological characteristics of Deschampsia caespitosa (L) P.B. in different plant communities. Vest.LGU 17:31-41 '62. (MIRA 15:12)

(DESCHAMPSIA) (PLANT COMMUNITIES)

KHLYSTOVA, Iraida Pavlovna; CHIZHIKOVA, Yelena Konstantinovan; RAVKIND, B.M., red.; LEBEDEVA, Z.V., tekhn. red.; BUGROVA, T.I., tekhn. red.

[Methods for ultraviolet irradiation in children's institutions] Metodiki ul'trafioletovykh obluchenii v detskikh uchrezhdeniiakh. Leningrad, Medgiz, 1962. 39 p. (MIRA 15:6)

(ULTRAVIOLET RAYS--THERAPEUTIC USE)
(PEDIATRIC RADIOLOGY)

Chizhikova, Z. A.

USSR/Physics - Photoluminescence FD 426

Card 1/1 Pub. 147-12/16

Author : Galanin, M. D., and Chizhikova, Z. A.

Title : Yield of photoluminescence of certain organic crystals

Periodical : Zhur. eksp. i teor. fiz. 26, 624-628, May 1954

Abstract : The method of Alentsev and Vinokurov (Izv. AN SSSR, Ser. fiz. 15,725, 1951 is used to measure the absolute quantum yield of photoluminescence of fine crystalline organic substances (paradiphenylbenzol, anthracene, stilbene, naphthalin, etc.). For anthracene, the authors measure the yield of luminescence of a flat crystal by way of comparison with a fluorescein solution. They show that a yield close to unity is obtained when suitable corrections are introduced. Thank M. N. Alentsev.

Institution : Physics Institute imeni P. N. Lebedev, Acad Sci USSR

Submitted : August 31, 1953

CHIZHIKOVA, Z.A.

Category : USSR/Optics - Physical optics K-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2364

Author : Belyayev, L.M., Galarin, M.D., Morgenshtern, Z.L., Chizhikova, Z.A.
Inst : Phys. Inst. Acad. of Sciences USSR; Inst. of Crystallography, Acad. of Sci.USSR
Title : Dependence of the Yield of Gamma and Photoluminescence of KI-Tl Crystals on the Thallium Concentration

Orig Pub : Dokl. AN SSSR, 1954, 99, No 5, 691-694

Abstract : The luminescence yield η was determined for KI-Tl phosphors with a concentration of Tl of 2.35×10^{-6} to 1.2×10^{-3} g/g in the finished crystal, for excitation with gamma rays from Co^{60} and for optical excitation In the former case, the intensities of the individual scintillations and the summary average brightness of the glow were measured. In both cases, η_γ first increases approximately linearly with increasing Tl concentration, and then more slowly, disclosing a tendency to saturation at approximately 10^{-3} g to Tl per gram of KI. A curve of similar form is observed in the case of optical excitation in the band of the intrinsic absorption of the KI lattice (λ= 200 mμ), thus evidencing a certain community of luminescence mechanism in both cases. In the case of excitation in the first (long-wave) absorption band of Tl (λ= 287 mμ), η is independent of the concentration of Tl, but in the cases of excitation in the 240-245 mμ region, where the Tl absorption is overlapped by the edge of the

Card : 1/2

Category : USSR/Optics - Physical optics

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 2364 K 5

intrinsic lattice absorption, η increases rapidly up to concentrations of approximately 1.5×10^{-4} g of Tl per gram of KI, and becomes independent of the Tl concentration beyond that. This indicates a low effectiveness in the transfer of the absorbed energy from the basic substance to the Tl.

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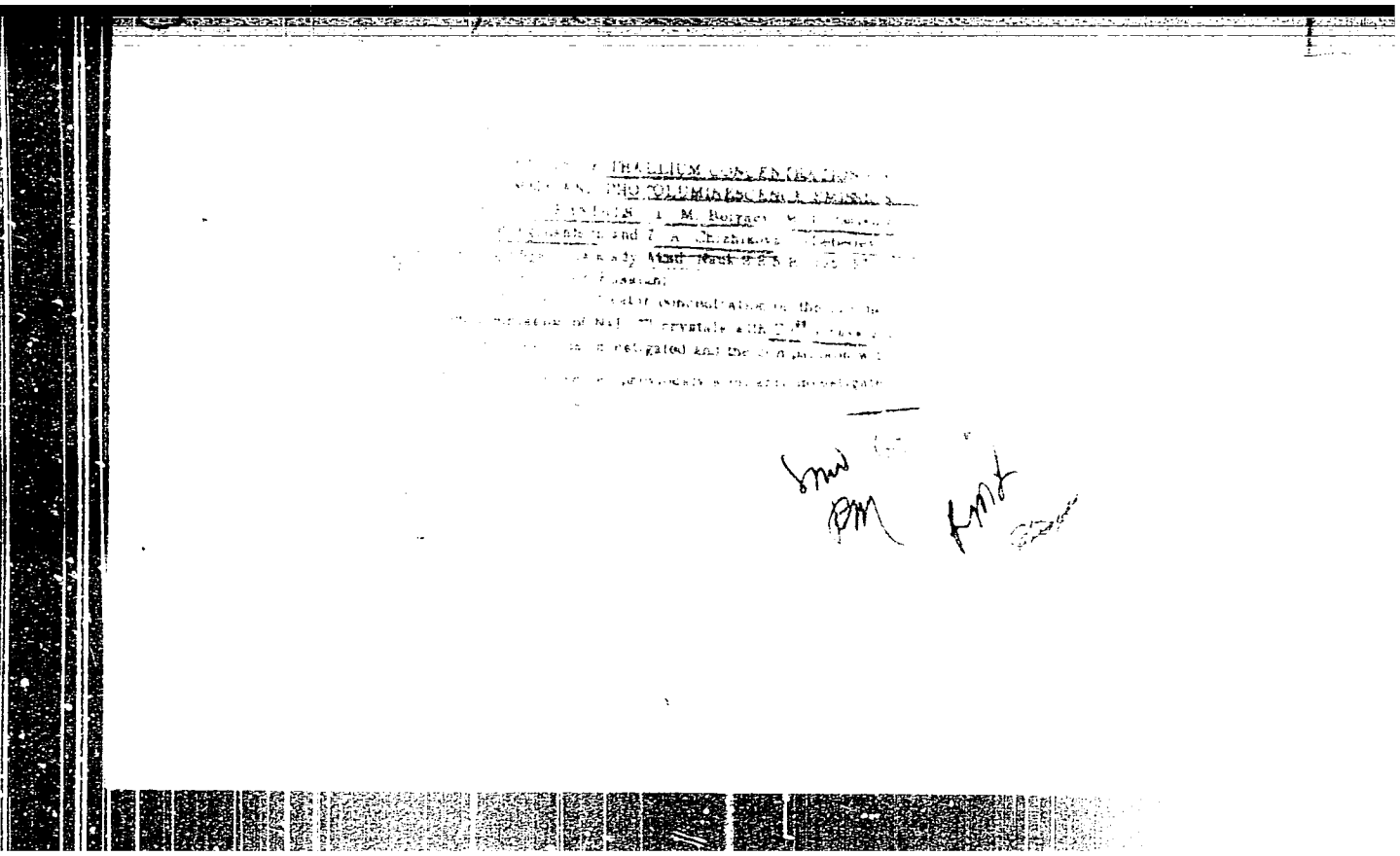

USSR / Physical Chemistry. Crystals.

B-5

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25924

Abstract : τ of II at the excitation λ = 436 mu, i.e. within its absorption band, is about 12 x 10^{-9} sec., and at the excitation λ = 365 mu, i.e. in the absorption band of anthracene, it is about 20 x 10^{-9} sec, if the II concentration was small. It was concluded that in the region from 10^{-5} to 10^{-4} g/g, the changes of τ are analogous to those observed in the sensibilized luminescence of liquid solutions (Galanin M.D., Izv. AN SSSR, ser. fiz., 1951, 15, 543). The location of absorption and luminescence spectra suggests the possibility of three kinds of the resonance transfer of the excitation energy: I→I, I→II and II→II. The comparison of the experimental results with the theory of the energy resonance transfer indicates the important part of the energy migration in the lattice of I, i.e. of the transfer I→I, in the process of the energy transfer from I to II. The hypothesis that this migration is caused by "localized excitons" is expressed.

Card : 2/2

CHIZHIKOVA, Z. A.

USSR/Physical Chemistry, Photo Chemistry, Radiation Chemistry, B-10
Theory of Photographic Process.

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22451.

Author : T. P. Belikova, M. D. Galanin, Z. A. Chizhikova.
Inst : Not given
Title : Transfer of excitation energy from the solvent to the dissolved luminophore in liquid and in solid solutions.

Orig Pub : Izv. A.N. USSR, ser. fiz. 1956, 20, No 4, 384-387.

Abstract : Theory of energy resonance transmission is applied on the examination of the phenomena of the energy transmission from the solvent to the dissolved luminophore, excited by emanation of a great quantity of energy in solutions of terphenyl in xylene, and antracene in toluene. The transfer of energy cannot be explained in this case by reabsorption by reason of a small luminescence yield of pure solvents. Comparison with the theory of resonance transfer showed, that experimental values of the probability of energy transfer from the solvent to the luminophore of more than by one degree surpasses values computed theoretically, and supposing that molecules remain stationary during their state of excitation. If we take into consid-

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CHIZHIKOVA, Z.A.

Category : USSR/Optics - Physical optics K-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2356

Author : Chizhikova, Z.A., Galanin, M.D.
Inst : Physics Institute Academy of Sciences USSR
Title : Gamma and Photoluminesce Yield of Organic Crystals

Orig Pub : Zh. eksperim. i teor, fiziki, 1956, 30, No 1, 187-188

Abstract : The relative luminescence yield of monocrystals of aromatic hydrocarbons was measured for gamma excitation (from Co^{60}) and for photo excitation (λ = 254 mμ). The gamma-excitation yield was determined: a) by measuring the average glow intensity in a photometric sphere, and b) by measuring the relative values of the scintillations with a counter having an integral discriminator, using the constant counting-rate method. The previously measured absolute quantum yields were used to recalculate the obtained data to the absolute scale. The relationship $B_\gamma = B^q_{ph}$ between the energy yield by gamma excitation (B_γ) and the absolute quantum photoluminescence yield (B^q_{ph}) was used to determine the effectiveness of the luminescence by gamma excitation (ρ). This value is the same for all organic crystals (approximately 1--1.2%). The values of B^q_{ph} are 50% for tolane, 50% for stilbene, 17% for naphthalene, 30% for terphenyl, and 44% for dibenzyl.

Card : 1/1

Chizhikova Z.A.

SUBJECT: USSR/Luminescence 48-4-28/48

AUTHORS: Belyayev L. M., Galanin M.D., Morgenshtern Z.L. and Chizhikova Z.A.

TITLE: Dependence of Gamma- and Photoluminescence Yield of Alkali Iodides Activated by Tallium on the Concentration of the Activator (Zavisimost' vykhoda gamma- i fotolyuminestsentsii shchelochnykh iodidov, aktivirovannykh talliyem ot kontsentratsii aktivatora)

PERIODICAL: Izvestiya Akdademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #4, p 548 (USSR)

ABSTRACT: This investigation was aimed at clarification of the problem, what is the concentration of an activator, for which the energy transfer from the lattice to the activator proceeds with a sufficient effectiveness.

Investigations were carried out with single crystals of NaJ, KJ and CsJ activated by tallium, whose concentration was determined by the polarographic method. The measurements of relative yield due to excitation by light have shown that the yield does not depend on concentration, that is, no concentration quenching was observed within the limits investigated (up to

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48-4-28/48

TITLE: Dependence of Gamma- and Photoluminescence Yield of Alkali Iodides Activated by Tallium on the Concentration of the Activator (Zavisimost' vykhoda gamma- i fotolyuminestsentsii shchelochnykh iodidov, aktivirovannykh talliyem ot kontsentratsii aktivatora)

1.6×10^{-3} mol.Tl/mol.MeJ).

The relative yield due to excitation by gamma-rays rises with the increase of Tl concentration and approximates saturation at the further increase in concentration. The values of characteristic concentrations, at which the yield reaches half a value of the maximum yield, are as follows: 5.9×10^{-5} mol.Tl/mol. NaJ for NaJ-Tl; 24.4×10^{-5} mol.Tl/mol.KJ for KJ-Tl, and $< 3 \times 10^{-5}$ mol.Tl/mol.CsJ for CsJ-Tl.

No references are cited.

INSTITUTION: Not indicated

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 2/2

CHIZHIKOVA, Z. A.

AUTHORS: Galanin, M. D. and Chizhikova, Z. A. 51-4-2-9/28

TITLE: On Quenching the Luminescence of Organic Substances Excited with α-particles. (O tushenii lyuminestsentsii organicheskikh veshchestv pri vozbuzhdenii α-chastitsami.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.2, pp.196-202 (USSR).

ABSTRACT: The ratio of luminescence yields was measured on excitation with Po^{210} α-particles and Co^{60} γ-rays of organic crystals (stilbene, tolane, dibenzyl, naphthalene), plastics (polystyrene with diphenyloxazole) and solutions (terphenyl in xylol, 2,5-diphenyloxazole in xylol). In the case of Co^{60} γ-rays the scintillations are caused by Compton electrons. Scintillations were recorded by means of a usual scintillation counter and a differential pulse analyser (Fig.1 shows pulse distribution obtained for a tolane crystal). A table on p.198 shows that the ratio of yields due to α-particles and γ-rays for all the substances studied is equal to 0.10 ± 0.1. To find the nature of the quenching process carbon tetrachloride was used to quench α- and γ-luminescence of terphenyl dissolved in xylol. The results of quenching with CCl_4

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On Quenching the Luminescence of Organic Substances Excited with α-particles. 51-4-2-9/28

are shown in Figs.2 and 3. Fig.4 gives the dependence of the relative yield of solutions of terphenyl in xylol on concentration of xylol. From quenching of terphenyl the author concludes that the low yield on α-excitation is due to, mainly, quenching during a time which is short compared with the excited-state lifetime (quenching of type I). The authors thank L.M. Belyayev for supply of crystals, L.D. Galanina for preparation of plastics and B.M. Mikhaylov for supply of terphenyl. There are 4 figures, 1 table, 11 references of which 3 are Soviet and 8 English and American.

ASSOCIATION: Physics Institute imeni P.N. Lebedev, Academy of Sciences of the USSR. (Fizicheskiy institut im. P.N. Lebedeva, AN SSSR.)

SUBMITTED: April 5, 1957.

1. Organic materials-Luminescence-Test results 2. Alpha particles-Applications

Card 2/2

AUTHORS: Galanin, M. D., Chizhikova, Z. [redacted] SOV/48-22-9-8/40

TITLE: On the Problem of the Connection Between the Kravets Integral and the Duration of the Excited State of Molecules (K voprosu o sootnoshenii mezhdu integralom Kravtsa i dlitel'nost'yu vozbuzhdennogo sostoyaniya molekul)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958, Vol 22, Nr 9, pp 1043 - 1046 (USSR)

ABSTRACT: In the case of luminescence with a quantum yield equal to unity the probability of a transition from the excited state is the same as the probability of emission $1/\tau_o$ (τ_o denotes the average duration of the excited state). In the absorption the transition probability is proportional to the area of the absorption band (Kravets integral). In the present paper experimental data are given; these data by some examples demonstrate the ratio between $1/\tau_o$ and the area of the first absorption band for luminescing substances with high quantum yield. The authors measured the quantities $\tau(\tau=\tau_o\varphi)$, the absorption spectra, and the

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quantum yield of luminescence of several luminescing solutions. The duration of the excited state was measured by means of a phase-fluorometer; the absorption spectra of the solutions were determined by means of the spectro-photometer SF-4 . In order to ascertain the quantum yield a comparison with the fluorescein solution was made. The yield of the fluorescein solution lately was determined according to the method described in reference 9. The table contains the results of the measurements; the figure shows several absorption- and luminescence spectra. In the computation of τ_0 according to the absorption the effective Lorentz (Lorents) field was employed. The values of τ_0 which were determined according to the surface of the absorption band agree for all solutions with the values computed according to the measured τ and ϱ. A considerable deviation is observed in the case of the anthracite crystal. This difference between crystal and solution is rather natural and possible. It depends on the strength of the effective field in the

crystal. There are 1 figure, 1 table, and 11 references, 6 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im.P.N.Lebedeva Akademii nauk SSSR (Physics Institute imeni P.N.Lebedev, AS USSR)

CHIZHIKOVA, Z. A. Cand Phys-Math Sci -- (diss) "~~Emanation of the~~ Radioluminescence of organic substances." Mos, 1959. 11 pp (Acad Sci USSR. Physics Inst im P. N. Lebedev), 150 copies (KL, 43-59, 121)

AUTHOR: Chizhikova, Z.A. SOV/51-7-2-12/34

TITLE: Luminescence and Vavilov--Cherenkov Radiation in Solutions Acted Upon by γ-Rays (Lyuminestsentsiya i izlucheniye Vavilova--Cherenkova v rastvorakh pod deystviyem γ-luchey).

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, Nr 2, pp 223-230(USSR)

ABSTRACT: The author studied the relationship between γ-luminescence and Vavilov--Cherenkov radiation in solutions where transfer of energy between the solute and the solvent does not occur (such solutions have water, ethyl alcohol, acetone, etc., as solvents). From this relationship the author deduced the efficiency ρ of excitation of luminescence by fast electrons (γ-ray energy is absorbed in solutions via Compton electrons). The following solutions were studied: sodium salicylate in water, quinine sulphide in water with 0.3% of H_2SO_4, 3-aminophthalimide in ethyl alcohol, 2,5-diphenyloxazole in ethyl alcohol, 2,5-diphenyloxazole in acetone and anthracene in acetone. The intensity of emission by the solutions irradiated with Co^{60} γ-rays was measured as a function of the solute concentration. The emission

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intensity J_γ was deduced from the photo-current of a photomultiplier FEU-29 placed next to the cell with the solution. The results are given as curves 1 in Figs 1-6; these curves represent J_γ plotted against the solute concentration C. Some of the J_γ curves in Figs 1-6 depart from the expected linearity due to concentration quenching. This quenching is the same for γ- and photoluminescence. It can be allowed for by measuring the relative photoluminescence yield J_{ph} (curves 2 in Figs 1-6) and dividing J_γ by J_{ph}. The emission intensity J_γ consists of three components: (1) Vavilov--Cherenkov radiation which was not absorbed by the solution, kJ_{VC} ($k < 1$, J_{VC} is the Vavilov--Cherenkov radiation intensity in a pure solvent), (2) Vavilov--Cherenkov radiation absorbed by the solution and transformed into luminescence of the solute, L_{VC}, (3) luminescence of the solute excited directly by Compton electrons produced by γ-rays, L(C); only the component (3) depends on the solute concentration. The non-absorbed Vavilov--Cherenkov radiation kJ_{VC} was determined graphically using values of J_{VC} in pure solvents irradiated with γ-rays (points "a" on the ordinate axes of Figs 1-6). The values of L_{VC} were found by extrapolation of the $(J_\gamma - kJ_{VC})/J_{ph}$ curves (marked 3 in Figs 1-6) to zero solute concentration.

Luminescence and Vavilov-Cherenkov Radiation in Solutions Acted Upon by γ-Rays

The curves 3 represent $L(C) + L_{VC} = (J_\gamma - kJ_{VC})/J_{ph}$, hence the values of L(C) and L_{VC} were found and from their ratio the value of ρ, the efficiency of excitation of luminescence by fast Compton electrons, due to γ-rays, was obtained. The quantity ρ represents the proportion of the absorbed energy which is lost in raising the luminescent molecule to an excited state. The values of ρ are listed in a table on p 226. They are:

ρ = 3.6% for 0.01 g/ml solution of sodium salicylate in water,
ρ = 3.4% for 0.003 g/ml solution of quinine sulphide in water with 0.3% H_2SO_4,
ρ = 4.2% for 0.002 g/ml solution of 3-aminophthalimide in ethyl alcohol,
ρ = 4.1% for 0.004 g/ml solution of 2,5-diphenyloxazole in ethyl alcohol,
ρ = 3.3% for 0.01 g/ml solution of 2,5-diphenyloxazole in acetone,
ρ = 4.7% for 0.002 g/ml solution of anthracene in acetone.

Acknowledgment is made to M.D. Galanin who directed this work. There are 6 figures, 1 table and 13 references, 6 of which are Soviet, 5 English, 1 German and 1 translation from English into Russian.

SUBMITTED: September 26, 1958

Card 3/3

AUTHOR: Chizhikova, Z.A.

SOV/51-7-2-30/34

TITLE: Energy Yield of Luminescence in γ-Scintillations in a Stilbene Crystal (Energeticheskiy vykhod lyuminestsentsii pri γ-stsintillyatsiyakh v kristalle stil'bena)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, Nr 2, pp 276-278 (USSR)

ABSTRACT: The energy yield of γ-scintillations in stilbene was measured following a technique described by Galanin and Grishin (Ref 1), except that collection of light was calculated instead of being measured in a photometric sphere. The yield was deduced from the light energy given out on each separate scintillation. The scintillation energy was measured by means of a calibrated spectrometric photomultiplier FEU. The scintillation pulses were amplified and their magnitude determined by means of a differential discriminator. A collimated beam of γ-rays Co^{60} was used and the energy corresponding to the edge of the Compton-electron energy distribution was found to be 1.06 MeV. The corresponding scintillation energy was 1.33×10^3 eV. Assuming a refractive index $n = 1.9 \pm 0.1$, the light-gathering coefficient of the set-up used was calculated to be 0.075 ± 0.010. This coefficient has to be corrected for reflection from internal surfaces of the crystal: they amount to 20%. In this way the energy yield of γ-scintillations

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in stilbene was found to be 2.1 ± 0.3%. Since the γ-scintillation yield of anthracene is approximately twice as large as that of stilbene (Refs 1, 8), it follows that the radioluminescence yield of anthracene may be taken to be 4%. Since the quantum yield of photoluminescence of anthracene is close to unity, the energy yield may be taken to represent the "radioluminescence excitation efficiency", i.e. the ratio of radioluminescence energy yield to the quantum yield of photoluminescence. The "excitation efficiency" of 4% for anthracene agrees with the value obtained by the present author (Ref 9) in anthracene solutions, using the method of comparing luminescence with Vavilov--Cherenkov radiation. The 4% energy yield of anthracene is, however, about twice as high as that reported earlier by Galanin and Grishin (Ref 1), who found it to be 1.7%. Acknowledgments are made to M.D. Galanin who directed this work, to G.S. Belikova for preparation of stilbene samples and to M.I. Epshteyn for his advice. There are 1 figure and 9 references, 4 of which are Soviet, 4 English and 1 Swiss.

SUBMITTED: March 5, 1959

CHIZHIKOVA, Z.A.

Output of radioluminescence of organic substances. Trudy Fiz. inst. 15:178-229 '60. (MIRA 14:7)
(Materials, Effect of radiation on)
(Scintillation counters)
(Luminescence)

GALANIN, M.D.; CHIZHIKOVA, Z.A.

Duration of the photoluminescence and radioluminescence of anthracene and naphthalene crystals Opt. i spektr. 11 no.2:271-273 Ag '61. (MIRA 14:8)

(Luminescence)
(Naphthalene crystals)
(Anthracene crystals)

GALININ, M. D., LEOLTOVICH, A. M., SVIRIDENKOV, E. A., STOROZHOV, V. N., CHIZHIKOVA, Z.A.

"Radiation properties of a ruby crystal laser."

The kinetics of generation at room temperature and low temperature (down to -165C) and properties of radiation coherence in a ruby laser were investigated.

Report presented to the 11th Conference on Luminescence (Molecular luminescence and luminescence analysis) Minsk, 10-15 Sept. 1962.

GALANIN, M.D.; KONOBEYEV, Yu.V.; CHIZHIKOVA, Z.A.

Effect of reabsorption on the law of damping of the luminescence of anthracene crystals. Opt. i spektr. 13 no.3:386-389 S '62. (MIRA 15:9)
(Anthracene crystals) (Luminescence)

GALANIN, M.D.; LEONTOVICH, A.M.; CHIZHIKOVA, Z.A.

Coherence and directionality of the emission of a ruby optical maser. Zhur. eksp. i teor. fiz. 43 no.1:347-349 Jl '62. (MIRA 15:9)

(Masers)

GALANIN, M.D.; LEONTOVICH, A.M.; SVIRIDENKOV, Z.A.; SMORCHKOV, V.N.; CHIZHIKOVA, Z.A.

Pulsations in the radiation from an optical ruby maser. Opt. i spektr. 14 no.1:165-166 Ja '63. (MIRA 16:5)
(Masers) (Quantum electronics)

EEC(t)/EEC(b)-2/EWP(k)/EWA(m)-2/EWA(h) Pn-4/Po-4/Pq-4/Pr-4/Pg-4/Peb/Pl-4/Pk-4/
Pl-4 IJP(c)/SSD/AFETR/RAEM(a)/ESD(t)/ASD(a)-5/ESD(gs)/AFWL/ASD(d)/BSD

ACCESSION NR: AP4044851 WC/WH S/0051/64/017/003/0402/0405

AUTHOR: Galanin, M. D.; Chizhikova, Z. A.

TITLE: Ruby luminescence at elevated excitation energies and in the oscillating mode B

SOURCE: Optika i spektroskopiya, v. 17, no. 3, 1964, 402-405

TOPIC TAGS: ruby laser, ruby luminescence, laser, laser luminescence measurement, laser luminescence

ABSTRACT: The intensity of a directed laser beam is proportional to the density of the radiation energy in the resonator. However, at any instant of time, the state of the laser system is also determined by the concentration of excited atoms. The latter can be judged by the intensity of luminescence. The experimental measurement of luminescence during oscillation is, however, difficult due to scattering of the laser beam in the crystal and its superposition upon the luminescence. In order to observe only that luminescence emitted by the oscillating portion of the crystal, the author pro-

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L 10662-65

ACCESSION NR: AP4044851

posed an optical system by which he had observed the R_2 line in the ruby spectrum. Equilibrium among the excited $\bar{E}$ and $\bar{2A}$ levels of Cr^{3+} in the Al_2O_3 lattice, which correspond to the R_1 and R_2 lines, is rapidly achieved, so that the population of the $\bar{E}$ level (R_1 line) can be observed in terms of the luminescence of the R_2 line. A graph which shows the shape of the pumping and luminescence pulses at lower and higher energies and a discussion thereof are presented for both the experimental and computed results. The results obtained in the oscillating state indicate that when both mirrors of the resonator are open, a sharp saturation of luminescence occurs when oscillation commences. The observed drop in luminescence [illegible] threshold is associated with a decrease in the pumping energy with time. Inasmuch as the luminescence becomes saturated rapidly as the pumping pulse energy increases, the oscillation energy continues to grow approximately in proportion to the pumping energy. This confirms the theory that oscillation does not occur due to the energy which, in the absence of oscillation, would be stored in the crystal but is due to an increase in the absorption of the oscillating crystal. "The authors express their thanks to A. M. Leontovich

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ACCESSION NR: AP4044851

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for his evaluation of their work." Orig. art. has: 2 formulas and 3 figures.

ASSOCIATION: none

SUBMITTED: 10Nov63 ATD PRESS: 3115 ENCL: 00

SUB CODE: EC NO REF SOV: 002 OTHER: 004

Card 3/3

L 6077-65 EWA(k)/FBD/EWG(r)/EWT(l)/EWP(e)/EWT(m)/EEC(k)-2/EWP(i)/T/
EEC(b)-2/EWP(k)/EWA(h)/EWA(m)-2 SCTB/IJP(c) WG/WH

ACCESSION NR: AP5019769 UR/0051/65/019/002/0296/0298
535.34+535.37:553.824

AUTHOR: Galanin, M. D.; Smorchkov, V. N.; Chizhikova, Z. A.

TITLE: Luminescence and absorption of excited ruby

SOURCE: Optika i spektroskopiya, v. 19, no. 2, 1965, 296-298

TOPIC TAGS: ruby, ruby crystal, optical pumping, population [illegible]
solid state laser, ruby laser

ABSTRACT: An investigation was made of the absorption and luminescence [illegible] excited ruby crystals in order to determine whether absorption [illegible] ^2E levels decreases the lifetime of excited chromium ions and the effect of absorption on the degree of population inversion that can be achieved. The experiments were conducted under conditions which made it possible to neglect stimulated emission. Within the limit of the experimental error (~10%) it was established that excitation from the ^2E level is followed by a quick nonradiative [illegible] the same level and that the probability of transition to the ground state [illegible] Therefore, the effects responsible for a decrease in the inverted population are most likely limited to spontaneous and stimulated emission. Orig. art. has: 3 formulas and 2 figures. [08]

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L 60877-65

ACCESSION NR: AP5019769

ASSOCIATION: none

SUBMITTED: 05Jan65 ENCL: 00 SUB CODE: SS

NO REF SOV: 002 OTHER: 002 ATD PRESS: 4063

Card 2/2

L 35887-66 EWI(l)/EWI(m)/EWP(j) IJP(c) JW/RM

ACC NR: AP6024509 SOURCE CODE: UR/0386/66/004/002/0041/0043

AUTHOR: Galanin, M. D.; Chizhikova, Z. A.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Effective cross sections of two-photon absorption in organic molecules

SOURCE: Zh eksper i teor fiz. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 2, 1966, 41-43

TOPIC TAGS: light absorption, organic crystal, luminescence, laser application, complex molecule, absorption coefficient

ABSTRACT: The authors have determined the effective cross sections of two-photon absorption for organic molecules of different symmetries (anthracene, acridine, and 3-aminophthalimide) and compared the absorption of anthracene in solution and in crystal form. The purpose of the investigation was to compare two-photon absorption for a molecule with symmetry center (anthracene) and molecules of lower symmetry. The two-photon absorption was determined from the intensity of the luminescence induced by a ruby laser. Since the two-photon and single-photon excitation intensities were compared directly, the procedure obviated the need for corrections for photomultiplier sensitivity, luminescence light gathering, and luminescence quantum yield. A Q-switched laser (rotating prism) of low power (up to 10 MW/cm^2) was used to avoid various extraneous effects. The use of an unfocused laser beam ensured constant

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ACC NR: AP6024509

energy density along the laser beam in the investigated substance. The single-photon excitation was by means of a flash lamp with filters to separate a narrow region near 347 nm (corresponding to double the laser frequency). The results have shown that the effective cross sections for two-photon absorption are very close for the three investigated molecules, thus demonstrating that the symmetry of a complex molecule does not influence the two-photon absorption probability. The absorption coefficient was several times larger for the anthracene crystal than for the solution. A control experiment demonstrated that the state of the crystal surface is not the cause of this difference. The authors thank B. P. Kirsanov for a discussion of the work. Orig. art. has: 1 formula and 1 table. [02]

SUB CODE: 20/ SUBM DATE: 05May66/ OTH REF: 002/ ATD PRESS: 5037

Card 2/2

CHIZHIN, I. M.

"Flat Feet." Sub 23 Oct 51, Central Inst for the Advanced Training of Physicians.

Dissertations presented for science and engineering degrees in Moscow during 1951. For degree Dr. Medical Sci.

SO: Sum. No. 480, 9 May 55

CHIZHISHIN, L.P., inzh.

Progressive production standards in electric power plants. Elek. sta. 31 no.1:90 Ja '60. (MIRA 13:5)
(Electric power plants--Production standards)

YERMILOV, A.A., inzh; SEULIN, N.A., insh; CHIZHUSHIN, P.L., insh.; CHEPELE, Yu.M., insh.; MUSATOV, T.P., insh.; FEDOROV, A.A., kand.tekhn.nauk; YAROSHETSKIY, L.M., insh.; GOL'DENBLAT, B.I., insh.; KUDRYASHOV, S.A., insh.; ZAKHAROV, N.N., insh.; SHCHUKIN, B.D., insh.

Improving planning of industrial power supply. Prom. energ. 13 no.7: 18-29 Jl '58. (MIRA 11:10)

1.Tyazhpromelektroproyekt. (for Yermilov). 2.Zhemproyektas, g.Kaunas (for Chepele).Donbassenergo (for Musatov). 4.Moskovskiy energeticheskiy institut (for Fedorov). 5.Uzgiprovodkhoz, g. Tashkent (for Yaroshetskiy). 6.Proyektnyy institut Ministerstva stroitel'stva USSR, Odessa (for Gol'denblat). 7.Elektroproyekt, g.Kuybyshev (for Kudryashov). 8.Gosradioelektronika (for Zakharov). 9. Gidroproyekt,g. Kuybyshev (for Shchukin).

(Electric power)

CHIZHITSKIY, Ya.G.; KUZNETSOV, A.N.

Transition to a seven-hour working day on the Sverdlovsk Railroad. Zhel.dor.transp. 42 no.2:67-69 F '60. (MIRA 13:5)

1. Nachal'nik otdela truda i zarabotnoy platy Sverdlovskoy dorogi (for Chizhitskiy). 2. Nachal'nik planovo-ekonomicheskogo otdela Sverdlovskoy dorogi (for Kuznetsov).
(Sverdlovsk--Railroads--Employees)
(Hours of labor)

UTKIN, Aleksey Vasil'yevich; EZERIN, Arnol'd Ernstovich; CHIZHITSKIY, Ya.G., retsenzent; YURCHENKO, I.F., inzh., red.; KOLTUNOVA, M.P., red.; KHITROV, P.A., tekhn. red.

[Wages in rolling stock operations; manual] Oplata truda v vagonnom khozyaistve; spravochnik. Pod obshchei red. I.F.IUrchenko. Moskva, Transzheldorizdat, 1962. 129 p. (MIRA 15:7)
(Wages—Railroads)

BUZINIYER, Mikhail Iosifovich; BOGDANOV, Ivan Kuz'mich; MASLOVA, Yekaterina Semenovna; YURCHENKO, I.F., inzh., red.; CHIZHITSKIY, Ya.G., retsenzent; KRISHTAL', L.I., red. MEDVEDEVA, A.A., tekhn. red.

[Wages of signaling and communications workers; manual] Oplata truda rabotnikov [illegible]tsii i sviazi; spravochnik. Pod obshchei red. I.F.IUrchenko. Moskva, Transzheldorizdat, 1962. 103 p. (MIRA 15:9)

(Wages—Railroads)

CHIZHKOV, B., tekar'; VERGEYCHIK, A., tekar'; SMIRNOV, M.; KRASOVSKIY, N.; SHITYKO, P.; CHAYKA, D.; MAZURENKO, P.

Same conditions bring different results. Okhr. truda i sots. strakh. no.1:30-33 Jl '58. (MIRA 11:12)

1.Instrumental'nyy tsekh Minskogo podshipnikovogo zavoda (for Chizhkov, Vergeychik). 2.Starshiy inzhenner po tekhnike bezopasnosti Minskogo podshipnikovogo zavoda (for Smirnov). 3.Sekretar' redaktsii zavodskoy mnogotirazhki "Za tekhnicheskiy progress" Minskogo podshipnikovogo zavoda (for Krasovskiy). 4.Glavnyy tekhnicheskiy inspektor Belsovprofa (for Shityko). 5.Spetsial'nyy korrespondent zhurnala Vsesoyuznogo tsentral'nogo soveta profsoyuzov "Okhrana truda i sotsial'noye strakhovnaiye" (for Mazurenko).
(Minsk--Industrial hygiene)

CHIZHKOV, M.S. (Leningrad)

Bacterial excretion during latent forms of pulmonary tuberculosis as determined by a microculture method and guinea pig infection [with summary in French]. Probl.tub. 35 no.4:68-72 '57. (MIRA 10:8)

1. Iz kafedry mikrobiologii Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova (nach. - prof. Sinitskiy)
(TUBERCULOSIS, PULMONARY, diag.
microculture of M. tuberc. in guinea pig (Rus))

17(10) SOV/177-58-4-15/32

AUTHOR: Chizhkov, M.S., -Colonel of the Medical Corps, Doctor of Medical Sciences

TITLE: Some Problems of the Epidemiology and Prophylaxis of Pulmonary Tuberculosis (Nekotoryye voprosy epidemiologii i profilaktiki tuberkuleza lëgkikh)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 4, pp 45-48 (USSR)

ABSTRACT: The article elucidates certain important antituberculosis measures which are performed in the Army and in the Navy. The prophylactic system provides that persons with a sharply pronounced tuberculin reaction are to be hospitalized and, after X-ray examination, to be treated with PASK and a general tonic therapy. Non-infected persons have to undergo a tuberculin test once in 3 months. This makes it possible to recognize initial forms of tuberculosis and to take corresponding prophylactic measures and treatment. The author indicates that the term

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"infected" is not identical with "diseased". Infected persons are indeed healthy persons, who satisfactorily overcame primary infection and consequently react to tuberculin. Their innate resistibility to tuberculosis has been increased by a specific immunity. Based on his examinations, the author concluded that sometimes patients with so-called latent forms of pulmonary tuberculosis have infected healthy persons. In the sputum of 47 from 148 patients virulent bacilli tuberculosis were found. This makes it necessary to examine soldiers with latent forms of tuberculosis by means of complex methods including the microbiological method (method of microculture BK in the author's modification). A very important fact in the general system of antituberculous measures in the Army is disinfection. S.Ye. Nezlin (1956) stated that means un-

Some Problems of the Epidemiology and Prophylaxis of Pulmonary Tuberculosis

suitable for liquidation of tuberculosis infection have been used and new measures for disinfection must be taken. Colonel of the Medical Corps Docent V.V. Puchkov assisted in the presentation of the clinical problems of tuberculosis. There is 1 Soviet reference.

CHIZHKOV, M.S., dotsent (Leningrad)

Dissemination of BCG cultures labeled with radioactive phosphorus in guinea pigs following intranasal administration. Probl. tub. 38 no.3:106-111 '60. (MIRA 14:5)

1. Iz kafedry mikrobiologii (nachal'nik - prof. A.A.Sinitskiy) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(BCG VACCINATION) (PHOSPHORUS—ISOTOPES)

FILIPPOV, G.G.; CHIZHKOV, V.P.

Chromatographic analysis of a mixture of gases containing concentrated hydrogen sulfide. Trudy MKHTI no.35:147-149 '61. (MIRA 14:10)

(Gases--Analysis)
(Hydrogen sulfide)

CHIZHKOVA, A.

ZAYKOVSKIY, Ya; CHIZHKOVA, A.

Oxidation number of fat and butter. Molochnaya Prom. 14, No.4, 32-3 '53. (MLRA 6:3)
(CA 47 no.15:7689 '53)

MIKHALEV, I.I., inzh.; VOL, TS.M., inzh.; CHIZHKOVA, L.A.

Using the VS-10T heat-resistant adhesive for joining friction disks with brake shoes. Vest.mash. 40 no.5:40-42 My '60. (MIRA 14:4)

(Automobiles—Brakes)

MEL'MAN, D.D.; CHIZHKOVA, L.A.

Gluing the lining on brake shoes instead of riveting. Avt.prom. 28 no.4:34-35 Ap '62. (MIRA 15:4)

1. Moskovskiy zavod malolitrazhnykh avtomobiley.
(Automobiles--Brakes)

GALANIN, M.D.; CHIZHKOVA, Z.A.

Relationship between the Kravets integral and the duration of the excited state of molecules. Izv. AN SSSR. Ser. fiz. 22 no.9:1043-1046 S '58. (MIRA 11:10)

1.Fizicheskiy institut im. P.N. Lebedeva AN SSSR.
(Molecules) (Luminescence)

CHIZHIAKOV, A.F.; BELYAKOVA, Ye.V., red.

[Surveying] Geodeziia. Petrozavodsk, Vysshaia shkola, 196r. 583 p. (MIRA 17:8)

KUPRIYANOV, M.P., inzh.; PAVLENKO, Yu.S., inzh.; CHIZHMAKOV, V.P., inzh.

Using the method of forced oscillations in determining mechanical properties of leather and shoe components. Izv.vys.ucheb.zav.; tekh.leg.prom. no.4:59-63 '58. (MIRA 11:12)

1.Ukrainskiy nauchno-issledovatel'skiy institut kozhevenno-obuvnoy promyshlennosti.
(Leather--Testing) (Shoe manufacture--Testing)
(Oscillations)

CHIZHMAKOV, V.F., inzh.

Programming digital computer for hot-rolling mills. Mekh. i avtom. proizv. 18 no.9:22-24 S '64. (MIRA 17:11)

CHIZHMAKOVA, A. M. Cand Tech Sci -- "Geodetic operations in the planning of agricultural settlements." Voronezh, 1959. (Min of Agr USSR. Voronezh Agr Inst) (KL, 1-61, 199)

CHIZHMAKOVA, A.M.

[redacted]

Studying the accuracy of determining heights with the KB-1 alidade.
Geod. i kart. no.1:55-59 Mr '56. (MLRA 9:10)
(Surveying--Instruments)

SOV/35-59-8-6670

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 8, p 81

AUTHOR: Chizhmakova, A.M.

TITLE: A Study of Distance Determination Accuracy With DNB-2 Range Finder

PERIODICAL: Zap. Voronezhsk. s.-kh. in-ta, 1958, Vol 27, Nr 1, pp 105-113

ABSTRACT: Errors affecting the accuracy of measuring distance with a DNB-2 range finder are analyzed. Experimental data are reported on the accuracy of a single measurement of a parallactic angle: at the length of a line being 80 - 200 m, the root-mean-square error (m_b) of measuring the angle amounts to $\pm$ 0''.54, for lines of 200 - 500 m $m_b = \pm$ 0''.71, and for lines of 500 - 700 m $m_b = \pm$ 1''.20. Using these data, the author calculates the number of stages (for each distance from 80 to 500 m) in measuring the parallactic angle, which would be sufficient to ensure the accuracy of measuring the line with an error of the order 1/2000. From the results of measuring the sides of two traverses and comparing the lengths of

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CHIZHMAKOVA, T.N.

Analyzing the accuracy of hydrological observations. Meteor.i gidrol. no.8:45-47 Ag '60. (MIRA 13:8)
(Hydrology--Research)

BOKSERMAN, Ye.I.; CHIZHMAKOVA, V.P.; RADCHENKO, V.A.

Method of determining the presence of the hide substance in leather, excluding nitrogen containing substances. Kozh.-obuv.-prom. 4 no.4:22-23 Ap '62. (MIRA 15:5)
(Leather—Analysis)

BOKSERMAN, Ye. I.; CHIZHMAKOVA, V. P.; RADCHENKO, V. A.

Simplified method of analyzing shredded glue stock. Kozh. obuv. prom. 4 no.10:25-26 O '62. (MIRA 15:10)

(Glue—Analysis)

LUKHTAN, I.V.; SMOLYANSKAYA, L.M. [Smolians'ka, L.M.]; IL'CHENKO, P.F.; SHUSTER, S.I.; SHATAYKIN, S.P.; BOKSERMAN, Ye.I. [Bokserman, IE.I.]; CHIZHMAKOVA, V.P. [Chyzhmakova, V.P.]

Use of ammonia soap for the fat-liquoring of stiff leathers. Leb. prom. no.2:59 Ap-Je '64 (MIRA 17:8)

CHIZHMAKOVA, V.P.; BOKSERMAN, Ye.I.; SMOLYANSKAYA, L.M.

Improving the quality of liquid tanning extracts by means of their treatment with the NF dispersing agent. Kozh.-obuv.prom. 6 no.11:23-24 N '64. (MIRA 18:4)

BOKSERMAN, Ye.I.; CHIZHMAKOVA, V.P.

Trilonometric determining of iron in vegetable and synthetic tanning extracts. Kozh.-obuv. prom. 6 no.5:40-41 My '64.
(MIRA 17:12)

BOKSERMAN, Ye.I. [Bokserman, IE.I.]; BALK, E.Ye. [Balk, Ye.Yu.]; CHIZHMAKOVA, V.P.

New methodology for the evaluation of the hygrothermal resistance of leather. Leh. prom. no.3:30-31 Jl-S '65. (MIRA 18:9)

CHIZHOV, A.

In the struggle for supremacy. Sov. profsoiuzy 3 no.6: 46-49 Je '55. (MLRA 8:8)

1. Sekretar' partiynogo byuro Aktastinskoy mashino-traktornoy stantsii, Karagandinskoy oblasti.
(Machine-tractor stations)

CHIZHOV, A.

Clusters of giants. Zemledelie 25 no.12:86 D '63. (MIRA 17:4)

ANISIMOV, L., inzh.; CHIZHOV, A., inzh.

Ninety percent of the apartment houses were rated "good" or "excellent." Na stroi. Ros. 3 no.10:2-3 O '62.

(Noril'sk--Apartment houses)

PAVLOVSKIY, V.; OSTAPENKO, K.; MENDELEVICH, M.M.; BATANOV, Yu.P.; ANTONETS, G.I.; ONIPENKO, N.I.; GORCHAK, G.K.; ANDRIYASH, L.T.; AMELIN, I.; IGNATOVICH, N.; CHIZHOV, A.; DALMATOV, M.K.; SIKORSKIY, A.N.; KOVALENKO, Ya.R.

Information and brief news. Veterinariia 40 no.9:83-93 S '63. (MIRA 17:1)

FISHELEVICH, M.; SOKOLOVA, L.M.; TROKHIN, V.K.; IVASHCHENKO, S.A.; VASIL'KOV, G.V.; BORISOVICH, Yu.F.; OVSYANOV, N.I.; AMINOV, S.A.; SUVOROV, P.S.; SHUBIN, V.A.; CHIZHOV, A.

Information and brief news. Veterinariia 41 no.3:118-126 Mr '64. (MIRA 18:1)

NECHAYEV, Nikolay Aleksandrovich, inzh.; CHLENOV, Aleksandr Alekseyevich, inzh.; ZELEVICH, P.M., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Constructing subway tunnels] Postroika tonnelei metropolitenov. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 291 p. (MIRA 11:12)
(Tunneling)
(Subways)

KOZYREV, V.D.; GRINBERG, I.G.; KUZINA, I.N.; ZHIDKOVA, L.S.; DVALI, M.F., nauchnyy red; CHIZHOV, A.A., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Geology, and oil and gas potentials of southern Sakhalin] Geologicheskoe stroenie i gazoneftenosnost' iuzhnoi chasti Sakhalina. Leningrad, Gos.nauchn.-tekhn.izd-vo neft.i gorno-topl.lit-ry leningr. otd-nie, 1960. 167 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologo-razvedochnyi institut. Trudy, no. 156) (MIRA 14:3)

(Sakhalin—Petroleum geology)
(Sakhalin—Gas,Natural—Geology)

KOZLOV, I.G. [deceased]; YASTREBOVA, T.A.; PURTOVA, S.I.; SEREBRYAKOVA, Z.D.; KIRINA, T.I., nauchnyy red.; CHIZHOV, A.A., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Key wells of the U.S.S.R.; Khanty-Mansi key well (Tyumen' Province)] Opornye skvazhiny SSSR; Khanty-Mansiiskaia opornaia skvazhina (Tiumenskaia oblast'). Leningrad, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry Leningr.otd-nie, 1961. 74 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut, Trudy, no.176). (MIRA 15:4)
(Khanty-Mansi region—Petroleum geology)
(Khanty-Mansi region—Gas, Natural—Geology)

Chizhov, A.A.

VASIL'YEV, Viktor Grigor'yevich; VYSOTSKIY, I.V., redaktor; PER'KOV, N.A., redaktor; BRISKMAN, A.A., redaktor; BEKMAN, Yu.K., vedushchiy redaktor; CHIZHOV, A.A., vedushchiy redaktor; GENNAD'YEVA, I.M., tekhnicheskiy redaktor

[Geologist's reference manual on natural gas] Spravochnik geologa po prirodnomu gazu. Leningrad, Gos. nauchno-tekhn. izd-vo neft. i gornotoplivnoi lit-ry, Leningr. otd-nie. Vol. 4. [Prospecting] Razvedochnye raboty. 1957. 612 p. (MLRA 10:5)
(Gas, Natural)

ANDREYEV, Pavel Fedorovich, BOGOMOLOV, Aleksey Ivanovich, DOBRYANSKIY, Aleksandr Flavianovich, KARTSEV, Aleksey Aleksandrovich, CHIZHOV, A.A., red.; YASHCHURZHINSKAYA, A.B., tekhn.red.;

[Conversion of petroleum in nature] Prevrashcheniia nefti v prirode. Pod red. A.F. Dobrianskogo. Leningrad, Gos. nauchno-tekhn. izd-vo nefti. i gorno-toplivnoi lit-ry, Leningr. otd-nie, 1958. 416 p. (Petroleum) (MIRA 11:9)

IL'INA, N.S., kand.geologo-mineralog.nauk; YELINA, L.M.; KYZHOVA, A.A.; BUZINOVA, V.M.; DMITRIYEVA, L.Ya.; GIMPELEVICH, E.D.; GALAKTIONOVA, N.M.; IL'INSKAYA, V.V.; SOLOV'YEVA, N.S.; KARASEV, M.S.; BAKIROV, A.A., red.; VEBER, V.V., red.; DANOV, A.V., red.; DIKENSHTEYN, G.Kh., red.; MAKSIMOV, S.P., red.; POZNYSH, M.A., red.; SAIDOV, M.N., red.; SEMIKHATOVA, S.V., red.; TURKEL'TAUB, N.M., red.; UL'YANOV, A.V., red. [deceased]; KHALTURIN, D.S., red.; SHABAYEVA, Ye.V., red.; CHIZHOV, A.A., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Coal deposits of the central provinces of the Russian Platform] Kamennougol'nye otlozheniia tsentral'nykh oblastei Russkoi platformy. Pod red. N.S.Il'inoi. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1958. 209 p. (MIRA 12:3)
(Russian Platform--Coal geology)

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